

F. P. D'ARCY.
HOSE CLAMP.
APPLICATION FILED MAR. 4, 1915.

1,155,646.

Patented Oct. 5, 1915.

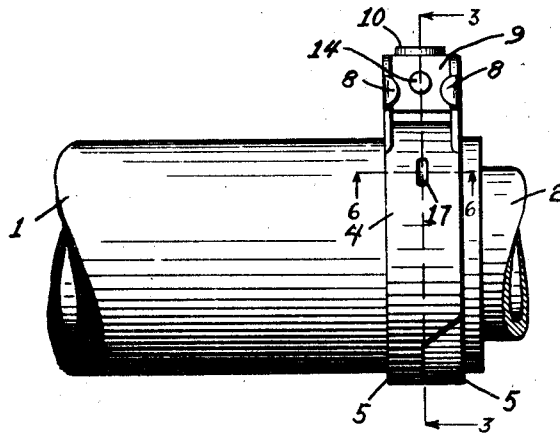


FIG. I.

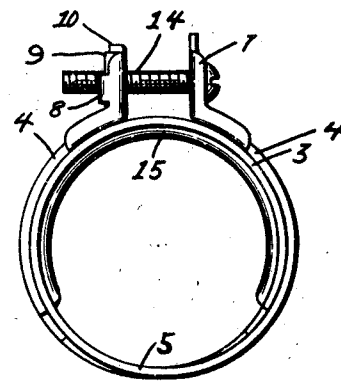


FIG. II.

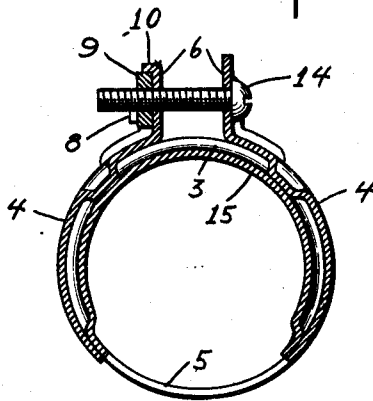


FIG. III.

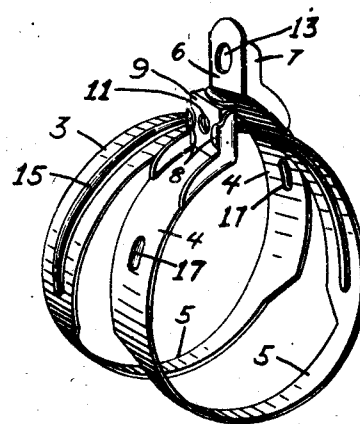


FIG. IV.

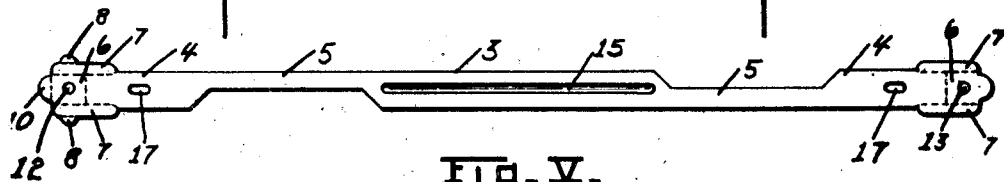


FIG. V.



FIG. VI.

WITNESSES:

P. M. Pomeroy
B. H. Sanders.

INVENTOR
FRANK P. D'ARCY

BY
Chappell & Earl
ATTORNEYS

UNITED STATES PATENT OFFICE.

FRANK P. D'ARCY, OF KALAMAZOO, MICHIGAN.

HOSE-CLAMP.

1,155,646.

Specification of Letters Patent.

Patented Oct. 5, 1915.

Application filed March 4, 1915. Serial No. 12,197.

To all whom it may concern:

Be it known that I, FRANK P. D'ARCY, a citizen of the United States, residing at Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Hose-Clamps, of which the following is a specification.

This invention relates to improvements in hose clamps.

The main objects of this invention are, to provide an improved hose clamp in which the body of the clamp contacts with the hose throughout its circumference, the clamp body being formed integrally of sheet metal.

A further object is to provide a hose clamp in which the nut is permanently secured to the clamp thereby facilitating the manipulation of the clamp in applying or removing it.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing forming a part of this specification, in which:

Figure I is a detail side elevation of a hose clamp embodying the features of my invention mounted upon a piece of hose. Fig. II is an edge view of my improved clamp. Fig. III is a transverse section through my improved clamp on a line corresponding to line 3—3 of Fig. I. Fig. IV is a perspective view of the clamp with the bolt removed and the convolutions of the clamp separated so as to better show the structure of the clamp. Fig. V is a plan view of the blank of my improved clamp. Fig. VI is a detail transverse section on the line corresponding to line 6—6 of Fig. I, showing the engagement of the lugs on the end portions with the guide groove in the body of the clamp.

In the drawing, similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

My improved clamp comprises an integral

body member formed of sheet metal and comprising a central portion 3, end portions 4, the end portions and the central portion being of substantially the same width, and narrow portions 5 between the central and end portions, the narrow portions being substantially one half the width of the central and end portions and adapted to lie edge to edge and with the central portion forming a complete convolution with the end portions 4 overlapping or resting upon the central portions 3.

The end portions 4 terminate in out turned ears 6 having side flanges 7 which extend onto the end portions 4, constituting bracing or stiffening members for the ears. The flanges 7 of one ear are provided with lugs 8 which are folded against the rear side of the nut 9 and the ear is provided with a lug 10 on its end folded against the upper edge of the nut thereby securing the nut to the clamp with its hole 11 registering with the hole 12 in the ear. The other ear has a hole 13 adapted to receive the bolt 14.

The central portion 3 is provided with an integral longitudinal bead 15 providing an external longitudinal groove 16. The end portions have bead-like lugs 17 struck inwardly therefrom to engage the groove 16 so that when the clamp is drawn up on a hose the end portions cannot slip laterally. This holds the narrow portions 5 edge to edge. The internal bead is embedded in the hose and there is a tendency for the hose to squeeze between the narrow portions 5, thus securing a very effective clamping action on the hose. By securing the nut as shown the hose can be conveniently applied or taken off in situations which prevent easy manipulation when the nut is free from the clamp.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A hose clamp comprising an integral sheet metal body having a central portion and end portions of substantially the same width and diagonally opposed portions between the central and end portions of substantially one half the width of the central and end portions and adapted to lie edge to edge and with the central portion forming a complete convolution, the end portions overlapping the central portion and terminating in out turned bolt ears, the central portion having a longitudinal bead provid-

ing an internal longitudinal rib and an external longitudinal groove, the end portions having lugs therein engaging said groove, and a bolt arranged through said ears.

5 2. A hose clamp comprising, a sheet metal body having integral out turned perforated ears at its ends, said ears having rearwardly turned flanges at their sides, the flanges being extended onto the body whereby the
10 ears are braced, a nut disposed between the flanges of one ear, such flanges having lugs on their edges folded onto the outer side of

the nut, there being a lug on the end of said ear folded upon the upper edge of the nut whereby the nut is secured to the ear, and a 15 bolt disposed through the other ear to coact with said nut.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

FRANK P. D'ARCY. [L. s.]

Witnesses:

LUELLA G. GREENFIELD,
MARGARET L. GLASGOW.